

Stoneledge Animal Hospital  
Cumberland County  
Westbrook, Maine  
A-278-71-F-R

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**Departmental  
Findings of Fact and Order  
Air Emission License**

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

A. Introduction

Stoneledge Animal Hospital of Westbrook, Maine has applied to renew their Air Emission License, permitting the operation of a Class IV-A veterinary incinerator, to dispose of animal remains.

B. Equipment to be Licensed

Incinerator #1 is a Class IV-A Model C-32P incinerator with the following specifications:

<b>Unit Number</b>	Incinerator #1
<b>Model</b>	C-32P
<b>Class Incinerator</b>	IV-A
<b>No. of Chambers</b>	2
<b>Type of Waste</b>	Type 4
<b>Max. Design (Combustion/Feed) Rate</b>	75 lb/hr
<b>Auxiliary Fuel Input:</b>	
<b>Primary Chamber (Btu/hr)</b>	200,000 #1 or #2 Fuel oil
<b>Secondary Chamber (Btu/hr)</b>	325,000 #1 or #2 Fuel oil
<b>Stack Flow Rate</b>	652 DSCFM
<b>Emission Control</b>	Afterburner
<b>Stack Number</b>	1

\* Incinerator #1 combustion gases vent to a 22.5-foot AGL (Above Ground Level) stack.

C. Application Classification

Stoneledge Animal Hospital has not proposed the licensing of increased emissions or the installation of new or modified equipment, therefore the license application is considered a renewal of existing licensed emission sources only.

## **II BEST PRACTICAL TREATMENT**

### **A. Introduction**

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations.

BPT for existing equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

### **B. Incinerator**

Stoneledge Animal Hospital owns and operates a Class IV-A Model C-32P veterinary incinerator, to dispose of animal remains at their Westbrook, Maine veterinary hospital. The incinerator was previously licensed at a maximum design feed rate of 50 pounds per hour (lb/hr). Stoneledge Animal Hospital has since replaced the primary chamber of the unit, increasing its maximum design feed rate to 75 lb/hr. Air emissions license amendment A-278-71-E-M reflects the replacement of the primary chamber but does not include an increase in feed capacity. Stoneledge Animal Hospital has requested that this license renewal reflect the increase in feed capacity to 75 lb/hr. Stoneledge Animal Hospital typically combusts approximately 8,000 pounds of animal remains per year.

The auxiliary burners have maximum heat input ratings of 200,000 British thermal units per hour (Btu/hr) for the primary chamber and 325,000 Btu/hr for the secondary chamber firing #1 and #2 fuel oil.

This source was previously subject to Best Available Control Technology (BACT) requirements. The former BACT determination is now considered Best Practical Treatment for this source. BPT for the Class IV-A veterinary incinerator includes the following:

BPT for the incinerator requires that the operating temperature in the secondary chamber or refractory lined stack shall be maintained at or above 1600°F with a stack gas retention time, at or above 1600°F, for at least 0.5 seconds.

To ensure an efficient burn and to prevent odors and visible emissions, the secondary chamber shall be preheated, as specified by the manufacturer, until the pyrometer temperature measures a minimum of 1200°F prior to commencing the burn cycle.

Once the burn cycle has commenced by introduction of primary chamber combustion, the incinerator shall be operated in an efficient manner and as specified by the manufacturer for the period of time between preheat and reaching the set operational temperature to be a minimum of 1600°F in the secondary chamber.

A pyrometer and ¼ inch test port shall be maintained at the location of the incinerator or refractory lined stack, which provides sufficient volume to insure a flue gas retention time of not less than 0.5 seconds at the minimum of 1600°F.

A log will be maintained recording the weight of the waste charged, preheat time, charging time and the temperature of the secondary chamber every 60 minutes after start-up, until, and including, final shutdown time. The facility shall make use of the chart recorder chart to record the start time, date, and weight charged.

A maximum particulate emission rate of 0.20 gr/dscf corrected to 12% CO<sub>2</sub> will be met. Prototype testing for this unit demonstrated an average particulate matter emission rate of 0.09 gr/dscf corrected to 12% CO<sub>2</sub>.

Visible emissions from the incinerator shall not exceed 10% opacity based on a (6) six-minute block average basis.

The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management.

The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License.

A summary of the BPT analysis for Incinerator #1 is as follows:

1. BPT for PM/PM<sub>10</sub> veterinary waste incinerators is 0.2 grs/dscf.
2. SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC emission limits are based upon AP-42 data dated 10/96 for the burning of #2 fuel oil and 1/95 for the operation of veterinary waste incinerators.
3. Visible emissions from the incinerator stack shall not exceed 10% opacity on a (6) six-minute block average.

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4

**Departmental  
Findings of Fact and Order  
Air Emission License**

Total annual emissions and hourly emissions limits were calculated using updated US Environmental Protection Agency's Compilation of Air Pollutant Emission Factors, AP-42.

**C. Annual Emissions Restrictions**

- Total annual emissions calculated based on continuous firing at maximum firing rate for 8760 hours (1 year) of operation.

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

<b><u>Pollutant</u></b>	<b><u>Tons/Year</u></b>
PM	4.0
PM <sub>10</sub>	4.0
SO <sub>2</sub>	1.5
NO <sub>x</sub>	0.9
CO	0.6
VOC	0.06

**III. AIR QUALITY ANALYSIS**

According to Chapter 115 of the Maine Bureau of Air Quality Regulations, the level of air quality analysis and monitoring are determined on a case-by-case basis. Based on analysis for similar sources, the size of the source, the allowable emissions, the location, and the stack height, ambient air quality standards, including increments, are not expected to be violated. Therefore, an ambient air impact analysis will not be required for this source at this time.

**ORDER**

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this above source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-278-71-F-R, subject to the following conditions:

## STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practices for minimizing emissions.
- (8) The licensee shall maintain sufficient records, to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use, as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- a. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    2. pursuant to any other requirement of this license to perform stack testing.
  - b. install or make provisions to install test ports that meet the criteria of 40 CFR part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - c. submit a written report to the Department within thirty (30) days from the date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess and operating conditions indicate emissions in excess of the applicable standards, then:
- a. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

- b. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - c. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions when such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitations.
- (15) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

#### **SPECIFIC CONDITIONS**

- (16) The incinerator shall be used for the disposal of type 4 (veterinary) waste and shall not be used for the disposal of plastics, cytotoxic (antineoplastic) drugs or any radioactive wastes and shall not be used to dispose of any medical waste classified as type 7 waste, as defined in Maine Air Regulations Chapter 100.
- (17) A log shall be maintained recording the weight of waste charged, preheating time, charging time, afterburner temperature directly after charging and every 60 minutes after startup until, and including, final shutdown time.

- (18) The secondary chamber of the incinerator shall be preheated to a minimum of 1200°F prior to commencing the burn cycle and shall be maintained at a minimum of 1600°F during the duration of the burn.
- (19) A pyrometer and ¼ inch test port shall be maintained at that location of the incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 0.5 seconds at the minimum of 1600°F.
- (20) Stoneledge Animal Hospital shall not exceed a particulate matter emission limit of 0.2 gr/dscf corrected to 12% CO<sub>2</sub> from the auxiliary fuel. Therefore, based on the maximum design combustion rate and continuous operation of the Class IV-A incinerator, emissions shall be limited to the following:

<b>Pollutant</b>	<b><u>gr/dscf</u></b>	<b><u>lb/hr</u></b>	<b><u>Ton/yr</u></b>
<b>PM</b>	0.2	0.9	4.0
<b>PM<sub>10</sub></b>	-	0.9	4.0
<b>SO<sub>2</sub></b>	-	0.3	1.5
<b>NO<sub>x</sub></b>	-	0.2	0.9
<b>CO</b>	-	0.1	0.6
<b>VOC</b>	-	0.01	0.06

- (21) Visible emissions from the incinerator shall not exceed an opacity limit of 10% based on a (6) six-minute block average basis.
- (22) The ash will be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management.
- (23) The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications, and shall be familiar with the terms of this Air Emission as it pertains to the operation of the incinerator.
- (24) Stoneledge Animal Hospital shall operate, in good working order, a chart-recording device to document compliance with the temperature requirements of this license. For each burn cycle, the chart shall have documented on it the start time, date and weight of waste charged.



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9

**Departmental  
Findings of Fact and Order  
Air Emission License**

- (25) Stoneledge Animal Hospital shall pay the annual air emission license fee within 30 days of March 31 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under 38 MRSA 341-D, Subsection 3.
- (26) The term of this order shall be for five (5) years from the date of signature.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: **June 16, 2003**

Date of application acceptance: **June 27, 2003**

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by, Peter G. Carleton, Bureau of Air Quality